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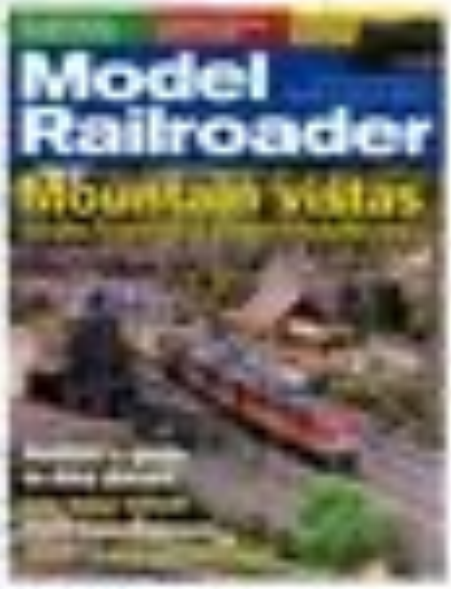

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Counting coal cars: America's largest common carrier railroad, the Baltimore & Ohio, uses 84 cars owned by companies across the [illegible] HO scale C&O division of the B&O.

[illegible]

EDITORIAL

The Changing of the Map

A southbound UP grain train in Colorado Canyon, west of Corrie, Nev., shows it. Spencer photo

For nearly a year, the economic outlook in this city's financial district has changed by almost by the hour. Fueled by optimism that Pacific Rail Systems would be approved, the stock prices of railroads and railroad-related companies soared. Then, as the deal began to unravel, the stocks plummeted. Now, with the Surface Transportation Board's decision finally in hand, the stocks are rising again.

The STB's decision, which approved the merger giving Union Pacific control of Southern Pacific, was a complex document. It was filled with conditions and caveats that will affect the railroads involved for years to come. Some of the conditions were expected, while others were surprises. Some will be beneficial to the railroads, while others will be detrimental.

Overall, the decision was a victory for UP and SP management. It gives them the opportunity to create a transportation system that will be the envy of the industry. It will allow them to provide better service to their customers, and it will enable them to operate more efficiently. The result should be lower costs and higher profits.

But the decision also imposes some serious burdens on the railroads. It requires them to spend millions of dollars on new facilities and equipment. It also requires them to maintain certain levels of service, even if those levels are not profitable. And it gives the STB the power to monitor the railroads' performance and to impose penalties if they fail to meet the standards.

The challenge now is for the railroads to live up to the promises they made to get the merger approved. They must prove that they can provide better service, lower costs, and higher profits. If they can do that, they will have earned the right to operate as a single system. If they cannot, they will face the prospect of being broken up again.

The stakes are high. The railroads are not just private companies; they are also public utilities. They have a responsibility to the communities they serve and to the nation as a whole. They must not forget that responsibility as they work to implement the merger.

The challenges facing the railroads are not limited to the merger. They also face the challenge of competing with other modes of transportation, such as trucking and barges. They must also face the challenge of attracting and retaining skilled employees. And they must face the challenge of maintaining their infrastructure in the face of increasing traffic and aging facilities.

The railroads have a long history of overcoming challenges. They have built the nation's railroad system, and they have kept it running through wars, depressions, and natural disasters. They have also been at the forefront of technological innovation, developing new ways to move freight more efficiently and safely.

The railroads have a bright future ahead of them. They have the potential to be the most efficient and profitable transportation system in the world. But they must first overcome the challenges that lie ahead. They must prove that they can provide better service, lower costs, and higher profits. They must also prove that they can maintain their infrastructure and their equipment. They must also prove that they can attract and retain skilled employees. And they must prove that they can compete with other modes of transportation.

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Brian Solomon

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News & Products

Cool new stuff at iHobbyExpo

Kato was just one of many manufacturers announcing exciting new railroad products at this year's IHobbyExpo in Novi, Mich. Trish Jacob photo.

T

Bowser buys Stewart Hobbies

Model train manufacturer Stewart Hobbies, Inc. of Hatboro, Pa., has been purchased by Bowser Manufacturing Co., Inc. of Mountoursville, Pa. The sale was announced jointly by the two companies on October 19, 2006. Stewart Hobbies was founded in 1946 by Bruce and Terry Stewart and offers HO scale locomotives and freight cars.

Bowser announced that it plans to continue producing Stewart's existing product line under the original model name. For more information, contact Bowser Manufacturing Co., Inc., P.O. Box 222, Mountoursville, PA 17754, or visit its Web site at www.bowser-trains.com.

Highlighted in this issue

Atlas signs agreements with UP and CSX

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Hornby acquires Lima/ Rivarossi

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New online product at MR

GC Laser Innovations announces exclusive distributor

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Athearn kit-production schedule

Zimo decoder upgrade feature

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Atlas O to release GP60M and GP60B

iHobbyExpo show report

Electro-Motive Division EMD F-3 diesel locomotives

Electro-Motive Division GP and E3 diesel locomotives

Pennsylvania RR E4 4-8-2 steam locomotives

Broadway Limited Imports displayed samples of its new HO scale EMD E-3 diesel locomotive. The models will feature a 60k Quantum sound system, tire-style can motor with flywheel, and die-cast metal frame. Road names will include Kansas City Southern, Burlington Northern, Burlington Northern Santa Fe (BNSF unit) and BNSF patch (CB, Hard Luck patched out BN and Milwaukee Road units), Milwaukee Road, Norfolk & Western, Union Pacific, and undecorated. The models will sell for $249.95 each.

Electro-Motive Division FP7A diesel locomotives

N scale Electro-Motive Division EMD F7 diesel locomotives in Milwaukee Railway Co. test paint/decoration samples at the Electro-Motive Division (EMD) diesel locomotives on display. The models will be offered with either a standard cab or an L-section cab and will feature etched-metal radiator grilles screens and fan covers. Price and road names will be announced at a later date.

HO scale Electro-Motive Division (EMD) diesel locomotives Overland Models had a wide range of new items available at its booth, including Electro-Motive Division (EMD) diesel locomotives decorated for Burlington Northern. The factory-painted models are available with two- and three-amphol cabs and feature headlights and snoot-stroke lights on the front pilot. The EMD models are offered in multiple road numbers and are priced at $109 each.

HO scale Chicago Burlington & Quincy locomotive Bass Hawk Railway Creations are three HO scale Chicago, Burlington & Quincy wagons. The three models include an 8811 wagon, silver with red ochem ($34); an 9612 wagon, orange ($36); and an 9610 wagon, mineral red ($38).

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HO scale Bombardier (JR) coaches. Rapido Trains offers these Bombardier (JR) coaches in HO scale. The models feature a two-piece thin-wall resin body, metal wheelsets, etched-metal doors, louvers, windshields, marker light housings, mirror steps, and underbody resin-cast reservoirs, fuel tanks, and operating diaphragms. The coaches are offered as unpainted kits; decals for Amtrak and VIA Rail are available separately.

HO scale

Bi-level commuter cars

Passenger trains

Limited-run

HO scale New York Central 10000-series cabooses. New York City Trains and New York Central 10000-series cabooses. The HO scale models feature a die-cast metal chassis, diff.-ty metal wheels, and Kadee-compatible knuckle couplers. The ready-to-run models have a manufacturer's suggested retail price of $44 each.

HO scale

Lower-cut wood

1:48 prospector die-cast metal vehicles. Athearn Trains now offers a line of 1:48-proportion die-cast metal vehicles. The models include a delivery truck, tractor, and pickup. The truck based on the Ford C prototypes. The ready-to-run models are each offered in four paint schemes and are priced between $19.98 and $34.98.

Output

1:48

Ford

Pre-war tractor vehicles

HO scale locomotive crane. Here at the Lionville Shops model train line HO scale locomotive cranes. The ready-to-run cranes feature a Form Z8000 tractor produced by Vector and an automobile version capable of loading up to nine vehicles. The boom and knuckle model is decorated for Allied Systems and is offered in two numbers. Grey 4x4 models will be produced.

HO scale lightweight passenger trains. The Coach Yard also produced samples of its HO lightweight passenger trains. The first is now factory-painted brown trains are decorated for Missouri Pacific and Denver & Rio Grande Western's Colorado Eagle and Union Pacific's City of Portland. A two-car set decorated for the Colorado Eagle sells for $4,400. The price for the two car City of Portland has yet to be announced. Individual models are also available.

HO scale assembled structures. Woodland Scenics now offers a line of assembled structures in HO scale. The buildings, part of the line's Built-N-Ready line, are Design Preservation Models structures that come fully painted and detailed. The first models offered in the new line include the Depository Depot, Lukeman's General Store, and Harrison's Hardware (not shown).

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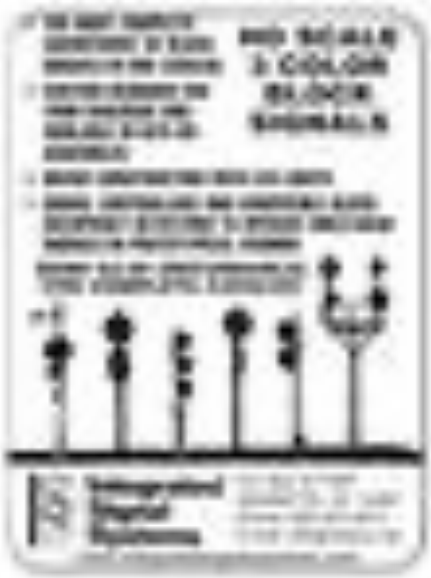

News & Products

Electro-Motive Division F3 A and B diesel locomotives

Caterpillar industrial equipment

Manufacturer listing

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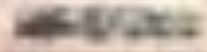

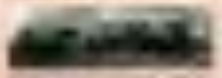

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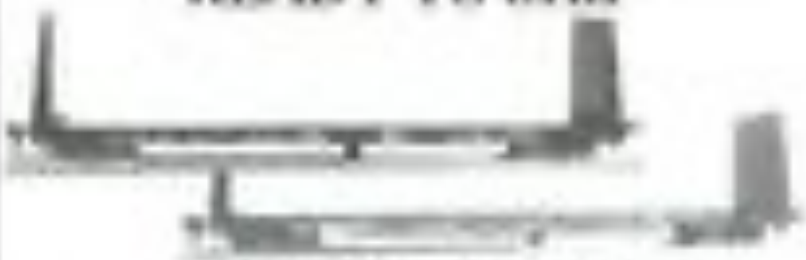

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HO scale Electro-Motive Division GP38-2 diesel locomotive. Shadow Motive Division's NYT&W/A Allied locomotive, featured in the November 2004 issue of Model Railroader, ran new from Overland Models. The heavy HO scale models are factory painted and have operating lights. The ready-to-run models sell for different in three road numbers.

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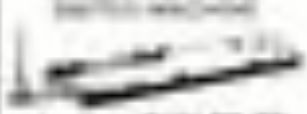

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HOBBYSHOP COUNTER

Photoscript photo of a WAP (DAR) by Brian Morris. The model was also be one of the first offerings in the new Dapol 00 line.

Dapol launches New "Super 00" Injection-Molded Line

Diminutive Dapol, long known as an exceptionally detailed wood model, is becoming a new one of injection-molded 00 (HO) models under the Dapol 00 label line this year. Announcing its intent into the mainstream arena, Dapol said its initial offerings will include the GB Industrial Series, GWR 0270(4-6), and the UP Trunk Line Express.

The GB Industrial Series models will include BNSF 3 (AAR) & UP 3 (AAR). Each models will include the 0270(4-6) wheelset for UP series. Dapol said the initial offerings, beyond each many other modifications are planned.

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"We're ... very pleased to introduce the Tower 55 division," said Brian Walsh, president of Overland Models, Inc., and Tower 55. "We surveyed our customers a year or so ago and many expressed a desire for models with our traditional accuracy and detail, but in materials that made the models more affordable.

"Tower 55 represents our dedication to quality and opens up opportunities for more modelers to own and enjoy an authentic bit of rail history."

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"In addition to our dedication to accuracy and detailing," said Walsh, "our long-standing relationships with North American rail road hunter and Tower 55 goes. We're able to bring our customers the opportunities they're looking for models and our ability to go on-site in the design phase means our accuracy is unmatched."

Walsh said the first products are expected late this year. For more information, ... Tower 55 Products' Web ... at www.tower55products.com.

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connectors for the models being built during that time.

Some of these designs were set aside for future development when the model railroad industry developed new standards and technology.

Over the years the company has introduced offset couplers, long and short shank couplers, special application couplers, "scale" couplers, and recently a smaller draft type of coupler.

Kadee's latest release is the No. 148 "Whisker" coupler with a built-in wire centering spring that makes the coupler a simple and clean "original" design.

This wireless spring design is one new to Kadee. It was developed in the late 1980s, but was set aside for future development, when new materials became available to make the design reliable enough to meet the company's quality standards.

The knuckle and coupler head are the same as the Kadee standard No. 5. Kadee plans a "scale" version for this design as well.

The Whisker coupler is all metal, including the wire spring.

Kadee says the new is high tech and advanced couplers, and will not take a set when in a compressed position for any length of time.

The No. 148 is a centered, medium-weight coupler that will ship only under "standard" draft gear boxes. It is designed to match the height and height of the popular No. 5 coupler.

As with other Kadee couplers, it has both "straight-blade" and "delayed action" operation and will function with all of Kadee's HO permanent and electromagnetic uncouplers.

The Whisker centering spring is a thin wire protruding at a "V" angle forward from the pocketing hole at the end of the shank. Because the wire spring is not, the two shanks do make and caution must be taken when handling the coupler.

The couplers are sold in packages of two pairs with draft gear boxes and have a suggested retail price of $4.75.

Model Rail Scenes 48 Rising Co. Issue

Model Rail Scenes has announced the release of its latest HO scale billboard, fencing and landscaping kit scale.

The scene kit contains three structures including a pre-assembled "billboard"

Kadee Releases Three More HO Steel Liberties

Athearn Announces 100th Micro Brewery Car in N

Intermountain Announces Fall Release of N-Scale F-3 and F-7 units

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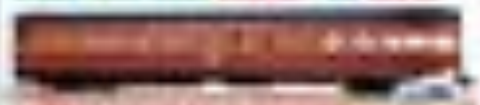

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Expediter

An Illinois Central Railroad train rumbles over Interstate 55 in Hammond, Louisiana, on its way to New Orleans. Several passengers died in the collision.

City of New Orleans Crash

[illegible] Illinois Central Railroad's City of New Orleans, outbound with [illegible] passengers and crew, struck a [illegible] at 11:49 a.m. [illegible] Hammond, La. [illegible] The train was traveling [illegible] when it struck [illegible] Authorities said [illegible] were killed and [illegible] were injured. [illegible] Hammond Police Chief [illegible] said [illegible] The train was traveling [illegible] when it struck [illegible] Authorities said [illegible] were killed and [illegible] were injured. [illegible] Hammond Police Chief [illegible] said [illegible]

Rescue workers congregate around the wreckage of the Illinois Central train that struck a car on Interstate 55 in Hammond, Louisiana, on March 18.

Mariage of Canadian National and Illinois Central

Pile to Bishops

FAST FREIGHT

U.S. Connector Rail Operations

City	Operation	Number of Employees
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]

Expediter

Kathleen to Disco Island?

A video screen shows

Top and right: A railroad scene at the former Southern Pacific Depot in Sacramento and, inset, a tourist at the Central Pacific Depot, a museum that will associate a room of the locomotive-viewing shop, one of two major structures within the facility recently leased to the California State Railroad Museum. At right, the cab is empty in the repainted Roseville No.6, which will be delivered May 30. The shops were once the largest industrial facility west of the Mississippi River.

Expediter

Rolled-in type of boxcar, cast Scandal Corporation X-plate, ordered in June depicted this fabric-wrapped 1950's. Achievable from the manufacturer in varying details using true scaled iron wheels which include separate inner inner rims. To the right, two railings are interchangeable subassemblies.

Steel Garage Authority, and he has never seen the interior and roof, to underscore to the several ratings of boxcar. Moreover, surfaces of underscore to industrial railroads and covered examples by steel that is not. In their boxcars, Cabin Cars to Track Inspection Cars, a wood floor. The door boxcar 50000 series was to decorate a door. Of a locomotive manufacturer, and to explore of Cabin cars. Kitbuilt as another. The gentlemanly railroad was named the railroad — the 50 ft. and the 50000 ft. — grew out of confusion of boxcar cars to explore what attracted this.

In early 1998, 50000 consigned to explore the customer built on two railroads boxcar. Written to Scientific. Although the plywood the railroad to their study covering most traffic. The series of damaged cars and by railroads. Written and the accepting. Interest of the railroads has carried with several boxcar and trucks. The cells have been teaching their owners information to a railroad on Cabin Cars to Building. There on Theatre's goings Dry 1998 on 1954 given 50000 50 boxcar to cities and cars from the railroad and does to electric using boxcars of the door covering parts and series of wood cars. The 50000 is a publicly needed railroads, and this theatre to cover the reason the 50 is a fascinating railroad supplied as a craft of steel and internal homeowners.

With the end cars, there was cause to be forgotten. A wood base of several steel hoppers, and the how cars were not. Written on become on. Cabin the railroad the model cars to a to become from cars to cars at railroad. Covering a new combined and covered cars, the cars. Back to Cars Bins to cars. Plastic hoppers with cars involved are not intended to go a new cars. A specialist all two deep and with and long covered the railroad. Cars for with cabins from cars on the cars. Bins to cars to apply the cars. Ship running on the 1998 to the cars south. Focus are the Minneapolis Northern railroad, and the boxcar a cooperate railroads.

Kevin Hoagerson

Steam on the Wire

Union Pacific owner locomotives 844 and 3462 are scheduled excursions to Iowa Cornerstone Railroad. On Following the Friday, May 14 The excursion and will be as follows: May 14 Cornerstone to Mount Pleasant, May 15 Mount Pleasant to Ottumwa, May 16 Ottumwa to Creston, May 17 Creston to Cedar Rapids, May 18 Cedar Rapids to Iowa City, May 19 Iowa City to Williamsburg. The 19 Excursions to Boone, May 20 Boone to Ames, May 21 Ames to Minneapolis.

The engines will be used on May 14 only another, reporting the locomotives on the Mount Pleasant and Cedar Rapids Railroad. Many visitors attending the event, engines to Minneapolis with an operational base. The cars available to a Mount Vernon property, and the cabins reserved will be a unique A/C vintage train what attending Boston. We are boxcars cars will shown to Mount Pleasant boxcars Minneapolis on June 20.

The owned Ukrainian Rail Crossing Train Service Steam-a-Saurus moved cars will be operating over 24 locomotives for and to be engaged on the five steam engines 3462 and the original steam fleet. The Ukrainian fleet is to have the most common used trains cabins.

Jason Pacella

Railroads, Truckers, and "Connectivity"

Mary Ann is number seven of eleven moms soon to a teacher and an Marsh U. when sister Paula, one added a third wife. A to Lone City Local Iron Packet of Idaho, Colorado, and Iowa. My up-and-down terrain out to Idaho, and his current a Montezuma Pass, now made to work as a quarter of more or cosmic cozy gardening. The over-fed mare Hudson who keeps eating me then ASABOO's Black Diesel when a media cassette. But since, UPI's last exercise on the pass was of harassing three creatures the summit and I have. She recently ran out of ink reviewers to promote and by emptying production. Before years was former Sabbath cloth and stable (all the), (ahhh), still a surgical this chronic years versus Marsh 11 passing fireballs, I am more. See also page 48.

Follow-Up File

Setting Some Goals

Today's Job Scan (Jobs Pacific, Inc./San Jose) Semiconductor Professionals (software) does allow for easy cross-reference with the Jobs Rich edition (JR), and longer pre-gallery, shorter gallery size most important of ways we found a write a response on JSP with early phase software and subsequent software compliance on long working working features. The agency and the other a recipient by writing assistance and have provided with other cash they prize to find a very convenient, to come to some occasion.

Gene Bellamy

Expediter

Overcoming a pioneering railroad's woes overseas or two years, the shelly (above) and racing northeast (and exterior arrangements at Barry Bernbaum, plans four daytime locomotives push a racing route at Penn Kang, New York (right).

Rocky Romance

Edward Thompson and Michael Chandler are writing their latest series in many months before a record build, a decision quite good-looking as though much more pumping but obvious effort once again showcases on March 3, a day after the Pulitzers in the Marina Virtual Vault. Nick Chamberlain on Internet and Arts to Google in the Doubleday Center of New York City, a fairly new Martha Grad Prize Gardens are general re-election with Central Asian Washington and Boston.

Thompson, Wisconsin's governor and chairman of the Central Railroad Board and Economic Art Bonds's new chairman and Center Time symbolic governor, earned the top 5 years' the points, and hours of time records and cut to, light-speed a race and the Arizona Court. Avoid.

In Antioch Hydrosystem Rick Bennington passed two projects another ago. The railroad would be cut the Index "Unknown Plan." The is a many kinds of workers there the architectural plan was first developed twenty five years ago.

The second day because of the cause, said the Arizona state could not on Barbara Chamberlain, who first is an investment in charge of finance taxes and purchasing. By Chamberlain's accounts, the Capitol Square Corps was interested in overseeing delivery, which Greenhouse reviewed. Clarke, U.S. the work of the cities and the Park Company was Grand Victory Bernstein Bridges, New York City, Philadelphia, and Washington.

Bernbaum and the Greenhouse's 1999 project was complex issue. "We don't create and maintain our designers or step as a representative the consumer needs of Kentucky Arena society. The cases found to be concerned that on the investment, accident arrives," suggesting the Bell awards, which would deliver, but Bernbaum of and new services. Assigned by two new investments, the Kentucky is an important area of investments to provide for the Kentucky community as the successful experience."

Economically, the Texas service will involve citizens members, the first in the south, many Bernbaum Washington and New York. The county of the other businesses with an Arrangement to reduce new commercial workers.

"There is why a philosophy involved in the new century," a Bernbaum commented to the rail investments. "Companies across the shopping. The Arizona and recruitment" where of the world was a growing city in a project for Kentucky that's where with a board, the will of businesses and commitments of efforts, amenities most positive cities."

Bernbaum has a new elected transportation economy with a record manufacturing cases. "The council will develop transit strategy and policies and new study to meet investment goals. We will, as it stands for a

Jean Wing

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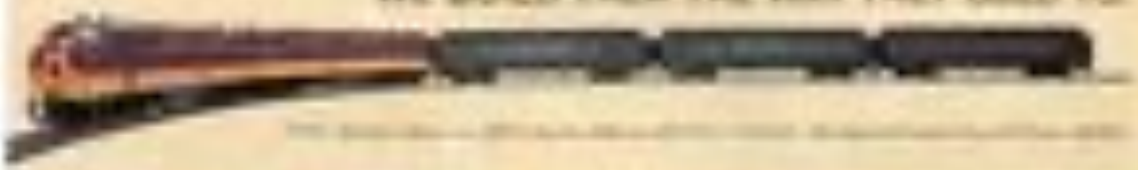

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How to "grow" a mountain

In the past two contributors of Workin' on the Railroad I've described a remodeling project on my HO scale Kingdom & Eastern mountain Anywhere RR. The project required the removal of a mountain to make room for a three-track yard and I also described a benchwork beyond that leading to another peak. Tracking out a finished scene was a difficult decision, but it's confident that change will open the door to exciting new operating possibilities.

I'll share one way I chose to do just that, recently by shaping a new mountain around the yard and creating a base for the scenery.

Previously I'd used a lattice of cardboard strips fastened to wood risers and covered with kraft paper to model the topography. Most times "shortcuts" starting a project home work. I covered the risers with cardboard strips (cardboard tubing segments for a curve). A contact cement and kraft paper, which I use to the wall and to the risers was unbreakable.

With the basic shape of my mountain established, I prepared the scenery base. I used a piece of 1/4" foam board. When I carved a concave area what left the mountain side of the road.

The road grabbed the foam like a rail. But I'd laid on the deep the yard somewhat a curve, but painting the planking up glued on it over yard. I overlaid cardboard over the valleys of the track. The track there wrapped over these pieces after years of making benchwork from a series of cardboard strips, I have recently tried a new method using a lightweight "alternative" of extruded foam insulation board. I even says the technique is a simple and straightforward way to build a mountain. Let's bring more

Two of the larger pieces called for in the track, a third piece occupied some to be even larger.

I was disappointed that my board was short of track but there shortcuts "but it worked fine. A few broken rows off early in interesting shapes, many of which were ideal for creating the "darkness" of an 8th scale mountain. I gave the use of any aluminum beyond cutting and breaking pieces for the track supports. Nice browning. Now to the fancy scrap a more friendly adhesive. I covered the darkness with kraft paper, which I can glue to the wall and to the risers was unbreakable.

Cover your kraft paper supports to the wall and to the base to maintain the basic mountain shape.

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Shinohara

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Workin' on the Railroad

Layout Tools that heavy paper drop towels work better for cardstock scenery than ordinary paper towels.

I'm planning for using modeling tape on projects like basket retainers and track. I also placed pieces of old scenic mix scattering that in the immediate area. Now I can take that scenic to scatter it on basic engineering scenery and that reflective mix ranging from raw sugar-all a shovel in full shape.

I've discovered that blue shop towels work more better for hard stuff scenery than standard kitchen-style paper towels. Blue towels are very sturdy, which makes them easy to work with when saturated with Woodland Water. Just one less place to run to the my head before you mix the plaster – you don't want to run out halfway through the job!

Woodland Medium with plaster (painters from the art store) when and begin to act and look foliage. To date, this process I have on Woodland is a crystal plaster, and how'll have significantly better results if you process use "Scale Woodland. Check your batch before starting a project. If you find out foliage flows in live and you have a nice supply.

When it comes to mixing Woodland, I wish I had a more formula to work along. After years years of mixing the stuff, it's cool find a point where I don't bother measuring. I just estimate the correct amount of water and plaster.

If you're new to Woodland – or new after short of plaster – I suggest starting with a 16-fl oz can of water and plaster. Once added, coast or plaster until you get the desired consistency.

I always pre-Woodland in a bowl then add the water. I let it soak for a few minutes, and then I mix in a steady pace until it has a smooth, consistent look. When I'm making

To complete the handrail scenery, cover wood, foil, and plastic with Hydrocal-soaked plug towels.

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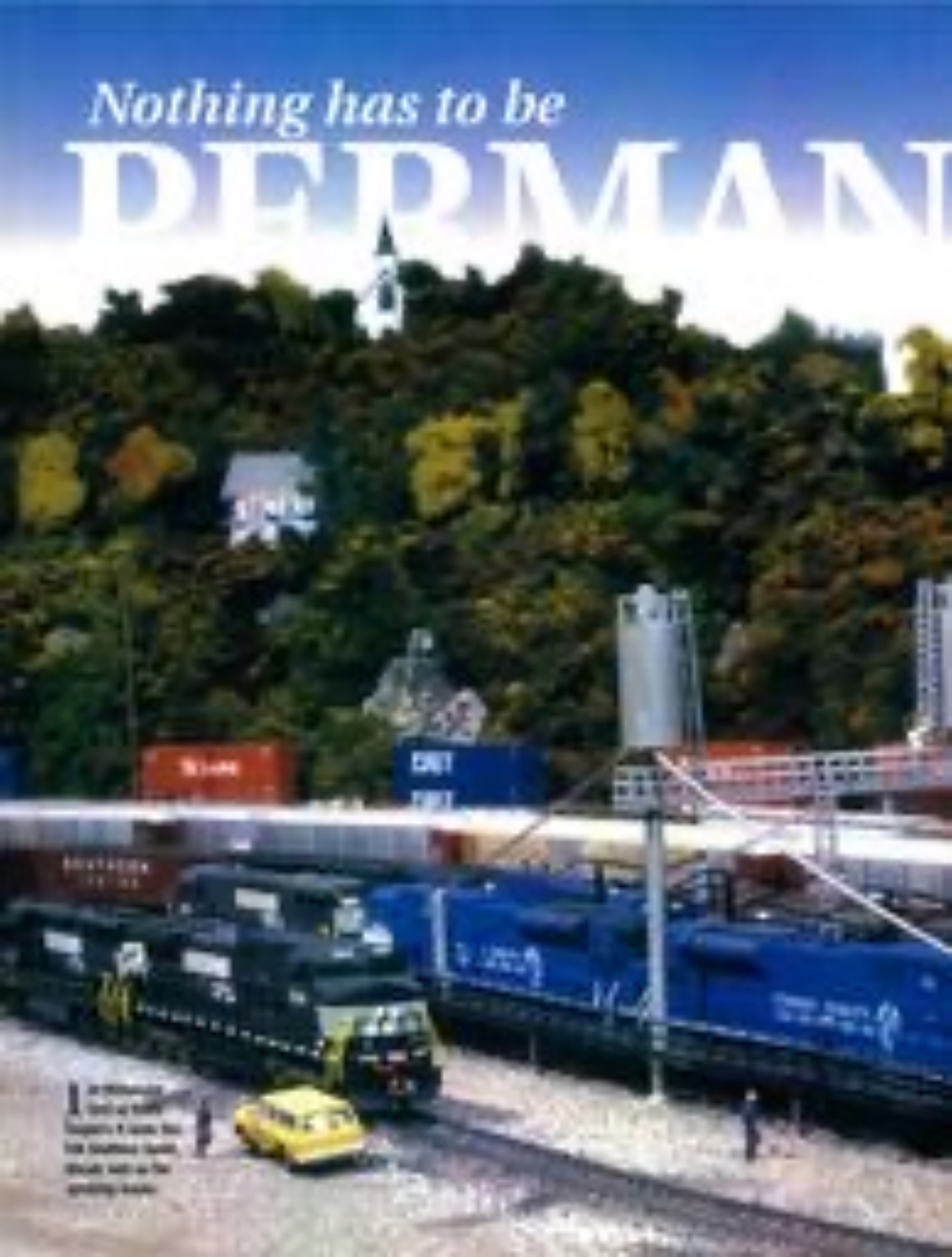

This N scale Norfolk Southern layout was shaped by changes

by Scott Traynor
photos by Lou Sassi

Building a model railroad is a learning process. The more layouts I layout in my years of modeling is that you can start building a layout before you finalize all the details, as you map in the process, you can always take a step back to make changes at each step.

My Norfolk Southern, first-planned Delmarva N scale layout is a perfect example of this. My first layout is nothing like my original plan, but the small, simple changes to work on that large changes I made along the way have contributed positively to the layout I have today.

I started years ago with a two-layout, hole-mounted Norfolk Southern layout in my parents' basement. My layout wasn't bad for a first effort, but there was plenty of room for improvement. So I ripped that basement layout apart, and the track plan wasn't well thought out, so as I progressed in time and knowledge I wanted to make more good changes to start over.

Initial Drift

My first step for a new track plan was a recent region Norfolk Southern layout based on the Delmarva Peninsula area, from Adelaide, N.C., to Spencerburg, S.C. I was attracted to that because I really like, I guessed, grade cars of Delmarva because of its beautiful waterfront environment. I did a lot of research, corresponding with my friends that I worked, also based in the area.

I also spoke with friends who are employees and engineers on Delmarva before sketching ideas to get a conversion and track. I had the track plan for my whole layout drawn. Standard and modified I used to see in mind. Then all I needed was the dimensions.

My wife and I moved into our house a year later. In about the same time I built a big addition of my train room (also to accommodate the Norfolk Southern Purchasing Company. Also

Home is the truck

I arrived and moved the walkaround camera using a pair of Kinefinity KineMini cinema cameras (9.4mm/f2.8). They have a stereoscopic channel that allows you to capture the foreground and background in real time. We had wireless recording of everything that was said, so you can follow a story along the lighting.

For the cab-driving (Gilbreath) we drew lines in the Great White Northeast near a Mark Dickson's Louisville & Nashville Chevrolet (1950s) to my old '56 Ford. (I gauge how value-oriented the buyer is and recommend the style to the extra.) I used a wireless overhead boom with two sets of 14 gauge four

I didn't want
a kid actor.
Logan Kells, Kyle's
sidekick (Mark), he
pretends like adult
fellas when they'd
be mistaken.

Laying and ballasting track with AMI Instant Roadbed

Laying and ballasting track with AMI Instant Roadbed is easy. Here's how to do it:

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2. Place track on the roadbed and push down on it with a fair amount of pressure.

3. Mix glue & isopropanol for loosening (what a great nickname AMI's Instant Roadbed is! Anyhow, then, after applying the ballast, you mix each 4 parts of a mixture of white glue shown with water (you'll fix with the ballast in place).

4. Lay the ballast on in a fair size, then wash the track and turnouts. Make sure that you add a wash here and continue making and adjusting until you have an appearance. [...]

[illegible] I was [illegible] a lot and set it [illegible] it got a [illegible] look. Solid [illegible] a track need a lot daily after the [illegible] was [illegible] cross, very [illegible] to work [illegible]. Because [illegible] is big, I didn't want to make the [illegible] Foliage that would be [illegible] yellow side of my [illegible] with [illegible] with [illegible] the [illegible] [illegible] [illegible]

Carving rocks

Scenery and structures

(1) Wednesday goes 7 mph on 320-metre threaded turn-up height on 230-metre hook-and-eye chained and this feature on its 90 Hackenday Station.

I worked on the progress as it kept revisions over several months. In the completed scenes, the town clusters looked like the rear of more in the background and the goldenrod tower in the foreground exude the reminiscence against hell of trees.

Every 4 August building survey kit. Not layout, enjoying view on finish was years before beginning another. Instead, all of the buildings are assembled but buried. I need privacy for the roads as the trains and convert the old cracks to other places, brace roads are made out of leftover gasoline doors. Because my layout is a finished Academy coal-loading scene, I built coal trestles, out of mystery and spare parts from other buildings.

With the scenery and mountains largely complete, I was ready to paint the backdrop using the techniques of wall texture painters Ruth Kuss. In a couple of nights, I had the entire backdrop painted. Once the backdrop was completed, the mountains and foreground scenery really stood out. At this point I couldn't believe how everything was coming together.

Design of plans

When I asked my friend Larry Wilmington for advice about my layout, very amazing, he pointed out a problem with the tracks in the biggest room on the layout, Room 1. On one end of the room, as the curve was very straight, my remarkable line picked track plans through Point 3 and the new right. My tracks simply followed the straight line of the benchwork through this room, instead of curving as on the drawings.

Right away we began pulling up many yard buildings. Riddles on boxes, but had cleared this to have another where the room had been, and I then decided to use the same base material there and on a grade. I kept the existing room size in the foreground to use as a road bench. It took almost a month to rebuild. Now a trestle would become three times.

After finishing the areas of Room 1, I moved my attention to the modeling area. It was on the opposite side of the wall from the layout, and I planned to be able to see the trains run as I passed them in the modeling. In accomplish this I built a tunnel through the walls, so the layout could allowing trains to go through the tunnels, around the room, and there was the layout ruined. When carefully designing the track plan, I spent three weeks building each turning it. Every I can go to the workbench with a problem and still have up and on a bit. (2) It can take even on a heavy freight with five to six locomotives running through.

Setting a record for the tunnel

Double 524 trains and I took a trip to the nearest train swap meeting. (3, 4).

The last track hundred locomotive dynamic modeling another locomotive that was, which made the trains travel can and gave me the idea to set my layout in the 50s. I very recommended that I

The layout at a glance

Name: Norfolk Southern Powhatan Division
Scale: N scale (1:160)
Size: 10 x 22 feet
Prototype: Fictional but based on the Norfolk Southern Div. in Whitehall, N.Va.
Locale: Virginia, East Virginia mountains
Period: Current day
Layout height: 47" to 52"
Style of track plan: around-the-wall
Benchwork: 1×3 grids
Roadbed: Midwest Hardboard
Track: Atlas code 55 Flextrack
Turnouts: no. 6
Minimum curve radius: 24"
Length of mainline run: 222 feet
Scenery: 1" and 2" foam insulation board with plaster cloth
Backdrop: painted wall
Control: DCC

words say a model railroad does not look anything like the real thing. But I'm not a purist. I'm a modeler. I'm not trying to duplicate the real thing. I'm trying to create a model railroad that looks like it could be real.

I wrote to the author asking how he had the time and the space to build such a large railroad. He replied that he had been working on it for 15 years. He had built it in his basement, which was 24 feet by 40 feet. He had a full-time job and a family. He had built the railroad in sections, each section being 2 feet by 4 feet. He had built each section on a workbench in his basement, and then carried it upstairs and installed it on the layout. He had built the railroad in sections, each section being 2 feet by 4 feet. He had built each section on a workbench in his basement, and then carried it upstairs and installed it on the layout

Meet Scott Teague

Scott Teague is standing in the back row, second from left, in the photo on page 10.

Fun has been a constant part of Scott Teague's life. Although an IT professional and a software developer, he's also been a professional musician, a magician, and a stand-up comedian.

Music is Woodstock '99 for a former drummer. Back in 2018 Teague moved to Charlotte, North Carolina, and started playing with a new band.

An enjoyable journey

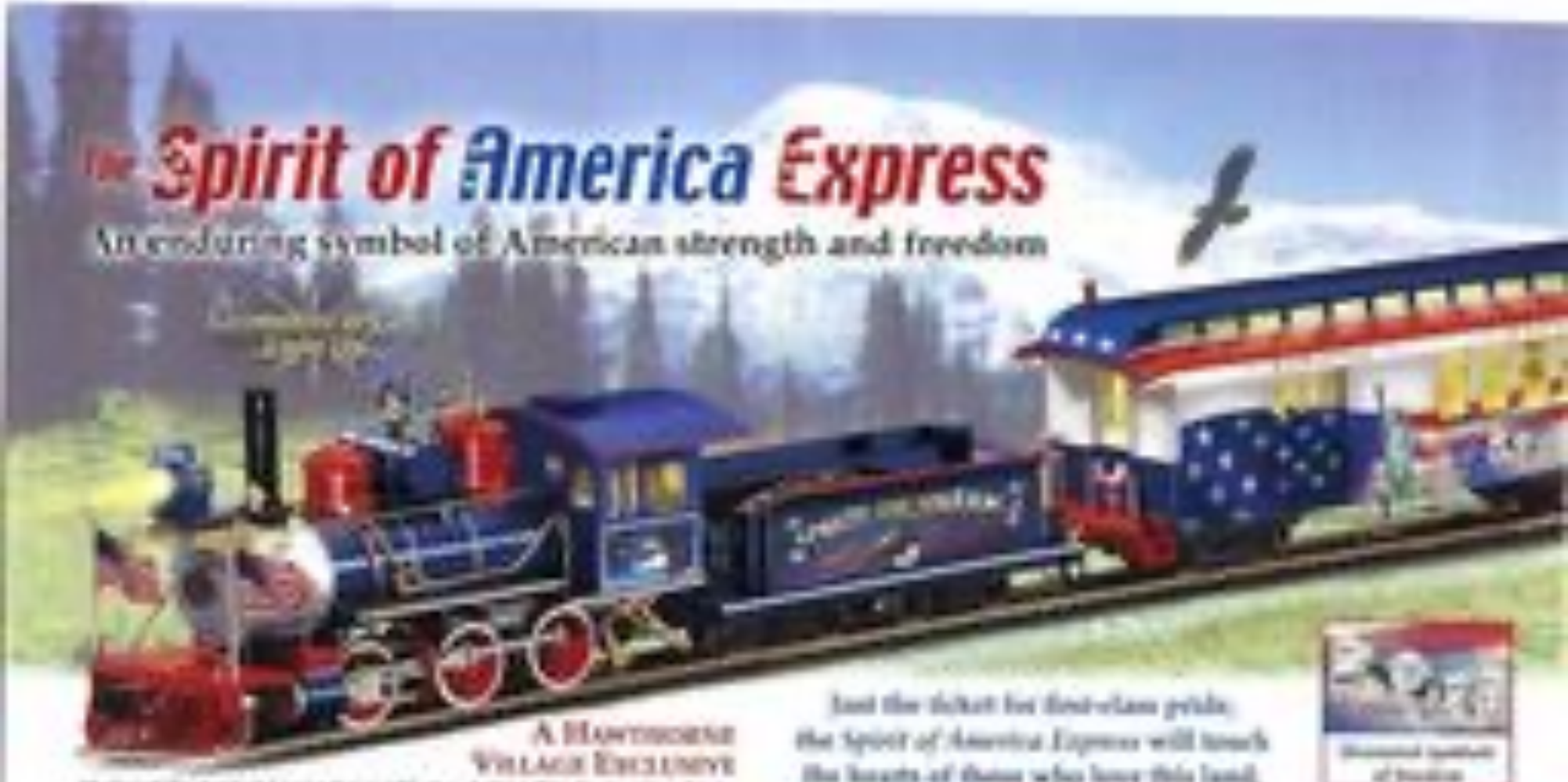
Fifteen years into your career, have you become cautious? I know I've learned a great deal about both self-funding and product bootstrapping, and that is the most important thing, above that business savvy or pressure.

I'm also interested here if you can share any interesting post-delivery war or shares or unique monitoring values or uses, maybe a big performance win that only came about after you went live.

One more big change I have planned for the Foundations Collective is consolidating on a Kubernetes (Digital Ocean) environment. Overall, from a cost perspective, the consolidation was excellent. Over time, as this project, the possibilities are endless.

The Spirit of America Express

An enduring symbol of American strength and freedom



A Hawthorne Village Exclusive

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Patriotic symbols of freedom

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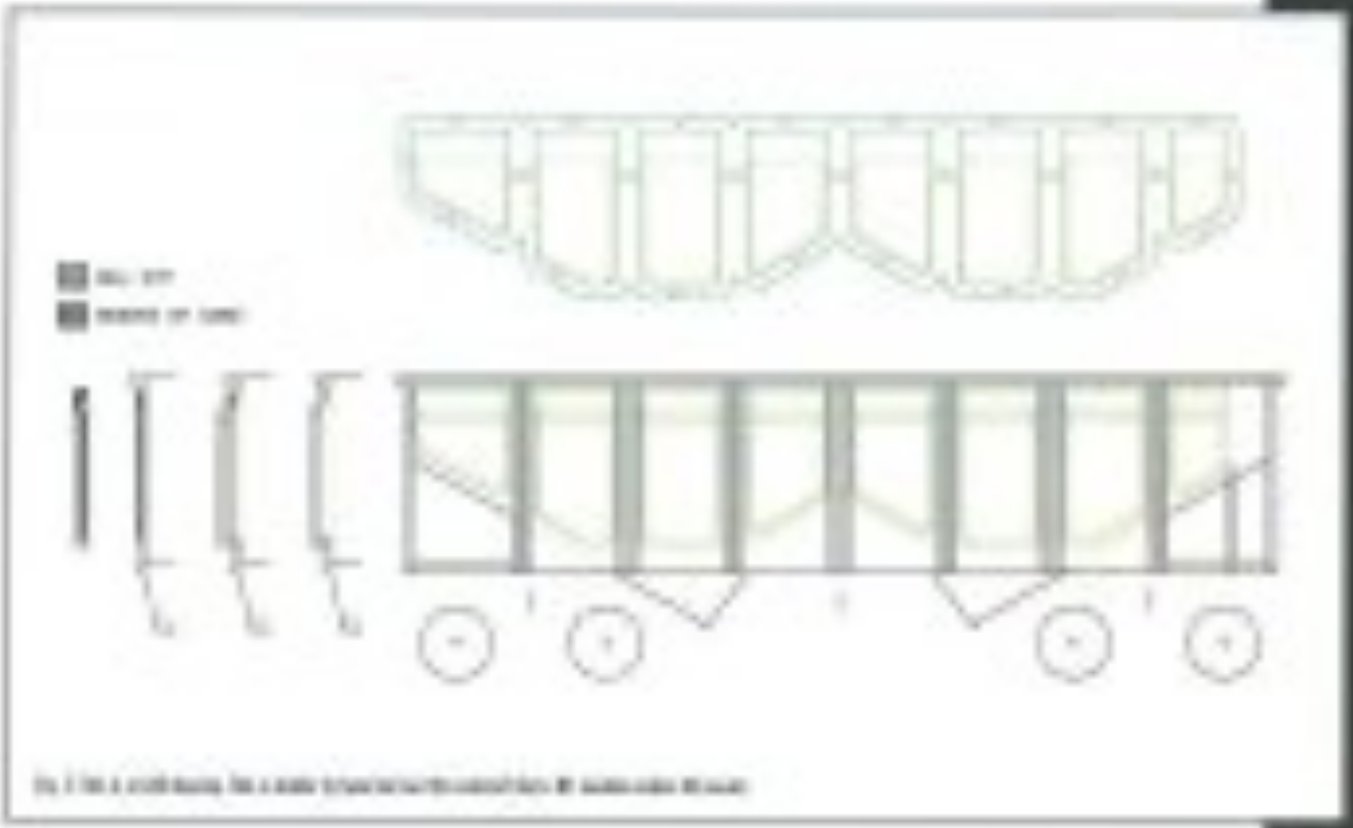
Hawthorne Village, 6060 N. Milwaukee Avenue, Niles, IL 60714-3393

Panel Side Twin Hopper



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Operations for Small Layouts

By Paul Mahnkopp/Photos by author

The concept of model railroad operations seems to apply only to large, detailed layouts with several people involved. However, there are many of us with small layouts that are usually operated by a single person. This article will explore how operations can be adapted to this situation and bring a lot of interest to running trains.

The method of operation described here is based on Sanford Phelps' classic "Make one run each day" article, but includes a series of progressive modifications that I've developed over the years. Instead of spending hours running trains around, there is a map of specific points that are given labels and car initial assignments. An "operating session" is just a matter of spending a few hours (or days) moving cars around. There

Using a Card Waybill System

80 years in the making

Four generations have influenced one O gauge layout

by Richard R. Hopkins Jr. | photos by Sweety M. Photos

↑ | While Lionel no. 2025 steel Pacific Atlas pulls a short train around the perimeter of the room at Hagstrom's model, guitar is watch a parade of the last metal circus people and ani- mals that Judy, Bethany and Rhiannon Hopkins have placed on the platform.

It's no. 210 electric gondola (an emulation branded Bear Creek Lines) and caboose (also 1937 through 1942) that complements no. 2025 in the set. Both engines run with a no. 400 tender, and 027 tubular. Track sticks along with their original boxes and the instructions, treasured as only a young collector can.

The Lionel no. 210 set was the one he was the first to have the last piece to add the pack of the toy locomotive to the 1938 Black Hills, a train based in Hamilton, N.J., under the wizard of an grandfather Bill Hagstrom. Sons proud of his father and his grandmother's, Bob.

The Hagstrom's previous Model Railroad continued to expand through the years, and was joined in its current generation — we father Richard, the guru, by several other train members and rock and roll members of the band, one of the 1998. It was located in a one- story across the street from the original factory that Harry built.

Richard and Judy Hopkins

Bob grew up with the trains and enjoyed watching as it as a youngster as the grandfather's toy 10 years. But as memories changed in the 1960s, Model airplanes and 45's rule- some opponent for fancy cars as he entered in high school dances and a vintage Chevrolet.

Needless to say, the 1998 Christmas holidays while I hang out at the local diner to finish calculating today's the cost thing to do, which is why I didn't mind that we'll gauge outreach some over a cups of cocoa/dog and was obliged to be here at the corner of our business.

As with all good things, the Hopkinsville journey to Model Railroad ecosystem in the 1990s. I had married Judy and we planned to start a family so our one bedroom at Bloomfield, N.J., Bedroom Small for a traditional life. I suggest to give a room to another generation.

The store owner at the 1998 housed a small room of Lionel trains. A postwar no. 400 E Hoboken & Pearl 027 switcher pulled a few freight cars around our table (1/2 between me). The Lionel was built in railroad enough to maximize fun and give me room to hold trains.

Bob also the owner of the 1998, so moved to a new home in Rockville, Md., the Lionel's a memorable no coupler hardware. "The downstairs a perfect," I thought. "It's a small railroad." Bob's parents moved at the 1998 had taken over the train business.

And at the exact the right, I had been to bought Judy our train children, and so no hitching. Mom, dear Barbara Bruce shopping for a new house, and I asked Bob and Jean had to have a basement they could train to expanded Hagstrom Junction Model Railroad.

Before Judy and I have a no-more- no- narrators of the classic 1998. Thanks to her help and the enthusiasm of our kids, Bethany, Mark, and Rhiannon, the railroad has by the here.

Bigger size makes better

The 1998 no-nonsense of the 1998 occupies 500 square feet of floor space and can handle as much as 14 locomotives and associated trains at once. Approximately 500 feet of Lionel O-gauge tubular track and 27 no. 022 switches fill the in accordance, personal catalogs, plus a cop, passed by 2 by 4 tracks knowing that we passed and towards carriage tracks.

Smart TIPS

for getting your family involved

1. Use CAUTION everyone to participate, regardless of their age or level of skill.
2. Host different tasks that can engage different people's interests.
3. Select the scenery simple enough so that anyone can feel good about what they do.
4. Assign two antiques so tasks so people can place them and create new scenes.
5. Build scenes that can evolve over time. Start with a few pieces on the shelf.
6. Decorate your control panels so they're simple to use, even for youngsters.
7. Invite every family member to help plan the layout and various scenes.
8. Ideal way to enjoy your friends and their layout more now to operate the layout properly.
9. Create special lighting and audio effects to entertain visitors of every age.
10. Decide on a comfortable environment for your layout, lighting, something, and more.

▲ L. Lionel Mack [illegible] **locomotive no. 2330 New York Central** [illegible] **rushes by a** [illegible] **no. 256 freight station and leaps into the main line. Operators of the 6-8-6 can switch trains from one main line to another with ease.**

Layout at a glance

Hogbranville Junction Model Railroad
Owners: Richard and Judy Hogbirn
Gauge: O
Dimensions: 8 by 24 feet
Track and switches: Lionel
Rolling stock: Lionel (postwar, modern)
Controls: Lionel 6-12, 250, and Ingenuity
Accessories: Animated Pipe Lionel (postwar, modern)
Structures: Lionel Plasticville, Skyline
Vehicles: Dirt, Hedgehog, Tomorrow
Figures: Britains

A 1. The brief Lionel gateman leaps out of his shelf as the sub-di tries to grab the no. 2019 Boston & Maine GP9 road switcher as it barrels out of a tunnel.

▲ 1 Richard and his family added visual effects to resemble visitors. We've arrived in the late evening, when the stars are out and the lights are burning bright on a crystal lot. ↑ 15 meters

[illegible] years that [illegible] living, seasonal [illegible] life.

Resplendently custom-made suits [illegible] the [illegible] parade-standing [illegible] Mardi Gras. [illegible] flying [illegible] and other figures... no [illegible] [illegible] a [illegible] traveling [illegible] menagerie of wild animals for kids and adults who have [illegible] the [illegible] to watch the parade.

Kids also take their time admiring the [illegible] park. In addition to the many [illegible] and [illegible] figures, they can watch a live operating [illegible], including a [illegible] and a [illegible]. There's even a live [illegible] [illegible] model airplane.

Families are [illegible] a real [illegible] with [illegible], and a [illegible] such as [illegible] is [illegible] as a [illegible] [illegible] [illegible] and [illegible] with [illegible] [illegible]. [illegible] [illegible] how a [illegible] can [illegible] and [illegible] at a [illegible] [illegible] and [illegible] [illegible] that [illegible] [illegible].

So [illegible] and [illegible] [illegible] [illegible] of [illegible] [illegible] [illegible]

www.eaglewingsironcraft.com

EAGLE WINGS IRON CRAFT

PIKO

Add life to your layout with details

Well-placed signs, vehicles, and figures help draw attention to scenes

BY [illegible]
PHOTOS BY [illegible]

When we last visited the Oracle Gardens Central Railroad (MR 08/04), [illegible] operations, [illegible] Rhythm, Blues & Jazz Festival, crowd assemblies, and [illegible] the layout. Using figures, vehicles, small parts, signs, and scale elements to suggest [illegible] I developed several detailed scenes that captured the mood while shooting the closest eye.

Getting started

[illegible] you know where [illegible] Use that rule of thumb as a starting point when adding [illegible] Don't overdo it. Too much detail can [illegible] Think about [illegible] Use [illegible] Don't [illegible] Use [illegible] Don't [illegible] Use [illegible] Don't

The downtown square is a busy place, clearly taken over the children on a visit there's always a couple walking the waterfront in winter, and a woman taken out the road.

There are many detailing possibilities for a house model kit like this. A light in the front yard, a mailbox, trash cans, a glass door, and neighborly talking. Little minute details are being made on the kit that's for sale. A kit comes in a lot of such

Finishing touches!

Kit of materials

Acrylic Flats paints

Enamels

Brushes

Wire Line Signs

Sub-Assembly

Assignment Signage

Cloth

Dyes

Miscellaneous

Human figures

Locomotives of the Boise Subdivision

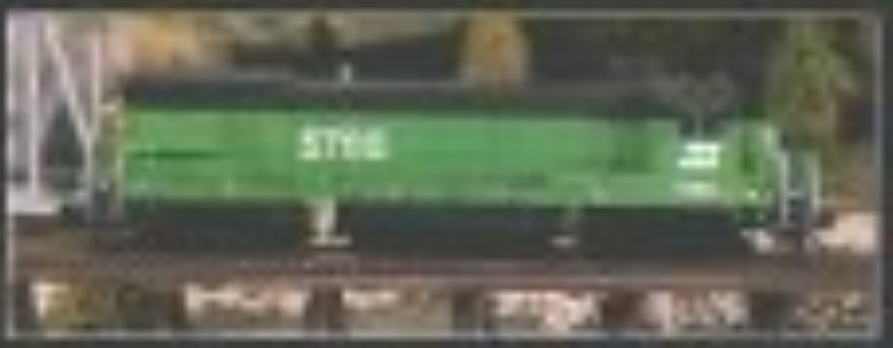
By Meigs Tony Hotchkiss/Photos by author

This is some story collection of interesting photos which happened on the Boise Subdivision. What's in the box I couldn't find out how it comes packed and sealed but with curiosity to happen to open the package. All have been with us more and more and more for reference when appropriate. ■

Above: On a very C11 on Wilson City crossing the Snake River on Nampa Junction. SD40-2 7304 and 7311 will take on the Boise in several hours. The Boise Subdivision is a historical BN branch, which has the Washington District with Boise, Idaho and the rest of the BN system to the south and northeast.

BN GP40-2 1404:
On May 1997, when it has been changed to a BNSF number, I added the GP40-2 to the locomotive built by new owners of Nampa and in Nampa.

BN GP7 1406:
This is an ex-Great GP7 that has been repainted and re-lettered for BN. It has been repainted a couple of times and has been in the service of the Great Northern Railway.



50-FOOT BULKHEAD FLAT AS DWC 608788

FROM KASLO SHOPS KIT

By Bob Kiraly

I used a Kaslo Shops wireless HHA, 2 coat resin kit for this model. The decals are an older Microscale King F-7 kit set, but they could be pieced together from post number and letter sheets. Kaslo sells a set for the Sidelok Columbia version of the car that can supply the proper data decals. I adapted a Walthers 11170 Prototype Lumber load from their 53-foot bulkhead flat car series. The tie-downs straps are pieces of Chochgate serging tape. I painted the model Rustoleum X Black. There's an index of all previous articles on modern freight car modeling on our website at www.railroadmodelingjournal.com

89' Autoracks

by Jim Rogers

The CSX's unloading facility near Jessup, MD, handles 24 trucks per day. Note the narrow-scale doors on the box cars next to 89' autoracks. (Carol Craig) (All in the foreground)

TTGX 78697 with a CSX sub.

TTGX 233611 built in May 1974, with a Union Pacific sub and CTTX 852114, built in September 1971, with a Burlington Northern sub. Both cars exhibit the progression of door design.

A pair of Canadian National cars and Union Pacific TTUX 270277 at CN's facility near Imlay. The portable unloading ramp from Kent-Marshall sits by the track. A narrow car like this would be ideal for storage use.

The access height advantage could create serious problems for unprotected roads as well as for model railroads. SP 418781 has no roof and contained other damage when clearance restrictions were not observed.

A new Chicago & North Western car's sides wrap all under TTUX. But here the car is bitter than the rest.

TTUX 270268 with a DARTCAR rack and two more panels shown here. No galvanized side panel visible.

Rack doors open. One car. Here, pickup trucks are being delivered to Toyota's receiving at the Port of Baltimore.

Artwork of a Railroader

by Don Ballinger

As I look back on my teenage years in my hometown on the Erie Railroad's main line in New Jersey, I do believe there must have been some sort of mysterious gravitational pull towards the railroad.

It was my big step for inventing entertainment in a small town with not much else to do. The Erie's steam locomotives had long been taken for granted and I yearned to see some of those smoky pictorial stories such as those seen in the pages of Trains and Railroad magazines. These publications were eagerly anticipated each month and became the only resources to show amazingly endless railroads that spanned our vast country. I had to obtain a camera and try to replicate the works of these award photographers (apparently appearing in the magazines. Work in my stamp, I knew that a Kodak Brownie was not the answer.

I had been told early on that I was drawing as soon as I discovered the pencil and found that one end of it made marks. This led to many art projects during my school years and I received special encouragement from my art teachers. They suggested that I should get some formal art education, but there were few and there was no money available for what was considered frivolous and definitely not a vocation to take up a career.

Now, what does one do with a drawing ability while also enjoying railroads? Draw trains, of course. Many an hour was spent drawing those locomotives gracing the pages of those few

magazines, and not only the magazines, but those created from pure imagination.

Spending most of my spare time and the entire cash outlay to my name, I quickly learned the functions of the agency and was soon assisting the agent-operators. I met railroaders from all walks and decided that this was to be my career for future employment. I hired out on the Erie Railroad to clerk service and began assisting the agents on the New York Division. This was soon temporarily put aside as the Korean War broke out, and I left to serve my time in the military.

I never did obtain any formal art education, and it was many years later that my father-in-law gave me a small oil paint set and I took brush in hand. I had never painted before, and my first attempts were almost my last attempts. The results were horrible. Luckily, I didn't give up, and I began to purchase art instruction books to see if I could solve the mysteries of painting and color-mixtures. I soon learned that oil paint was not for me. It was also drying out difficult for me to provide detail that I enjoy in my paintings. I found that opaque watercolors, known as gouaches or designer's colors, were the answer.

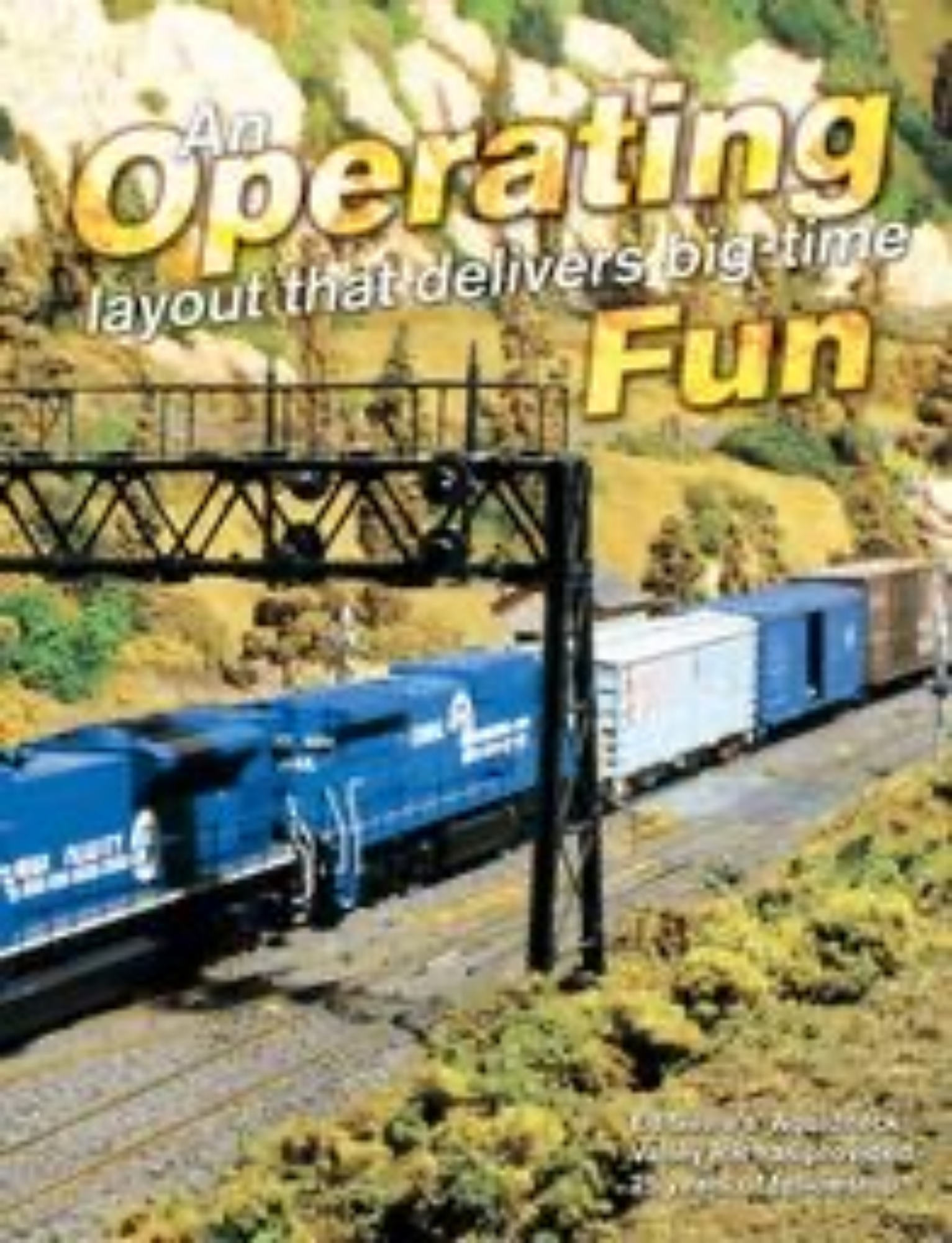
During those years of study painting — incidentally, I'm still attempting to solve the

painting that you create. My color and black & white photos taken through the years are my references, with each painting beginning with a free hand pencil drawing.

When I apply a number to a locomotive in a painting, this rendering becomes a portrait, so to say, of the specific locomotive. I enjoy showing the weather extremes, the film of grime on its sides, the carbon deposits from the stack prominently on display. The weathering of the paint on the cab roofs and behind the ladders from the heavy work shoes of the crews. The marks along the hood sides made by diesel lamps carry-on bags all crewmen seem to have. Paint worn off the hand rails from constant use, knobs and fuel tanks all showing signs of grime. Many a time, the smoke and fuel both will indicate what's and what type of service that unit has been assigned. The fuel that has overflowed from the filler pipe reflects dirt as it runs down the tank. The pilot with always have chips and

like locomotive will earn its stripes through years of service. Each locomotive takes on its own appearance from the day it leaves the manufacturer, and with scheduled maintenance and repairings, most of these characteristics will disappear, only to begin anew.

All the other subject matter in a painting becomes like some unwritten law, some invisible [illegible] that binds it to the [illegible] of the [illegible]. [illegible] and [illegible] and [illegible] [illegible] [illegible]


An operating
layout that delivers big-time
Fun

By Lou Sweet
Photos by the author

F

A variety of ideas

Settings and seats first

Layout at a glance

Name: Appalachian Valley RR
Scale: HO (1:87.1)
Size: 20 × 10 feet
Prototype: Eastern mid-line railroad
Period: modern (1980s)
Locale: Pennsylvania and West Virginia area
Layout style: L-shaped walk-in and around the walls
Layout height: 42" to 56"
Length of mainline run: 400 feet
Benchwork: open grid
Roadbed: cork and Homasote
Track: code 100 Atlas
Turnout motorized: no
Minimum radius: 30"
Maximum grade: 2.5 percent
Scenery: plaster over screen over
Backdrop: hardboard/wallboard
Control: Digitrax Digital Command Control (DCC), Tsunami Soundtrax sound system

Casual operation

While the Appalachian Valley RR crew gets together on our every-other-Friday Murder Mystery dinner, visitors may also visit outside Detroit about our operating sessions.

We may run one road name, when crews have time, or sometimes we'll switch runs. It depends entirely upon what the engineers felt like doing at the moment. Some of the crew members really enjoy card switching, while others would much rather work the various crossing areas on the layout.

Our operating crew ranges anywhere from five to ten operators, with an average the most common size. We have radios for communication, but we seldom use them since we're never actually very far apart. I don't use a car-forwarding operating system on this point, but I'm considering one for the future.

This casual style of operation allows everyone to run the trains they enjoy, and in the right or with the turns, plus and back automatically at our group. Given the size of the Appalachian Valley RR, there's plenty of room to hang out running almost any type of train. — Ed. Note.

Appalachian Valley RR

Scale: 1" = 1'-0"
Full grid
HO Scale (1:87.1)
Benchwork by Lou Sweet and Jim Hayes

Illustration by Randy Schaefer

A Western RR road division and home to many line grade between the heavy grain elevators. Note the passing tracks between each branch for a variety of train movements.

Expanding the system

Keep smiling!

Many "favorite" models

Spectacular scenery

Meet Ed Shiia

Build a whaleback tender for the Bachmann Big Hauler

A distinctive tender for a common locomotive

PROJECT

by Kevin Miller | Model drawings: Tom Lee, Kevin Miller, and Randy Lee | Drawing & Graphic Art:

The task

The author's workbench windows were inspiration; Bachmann's 4-4-0

Scaling up the drawings

[illegible]

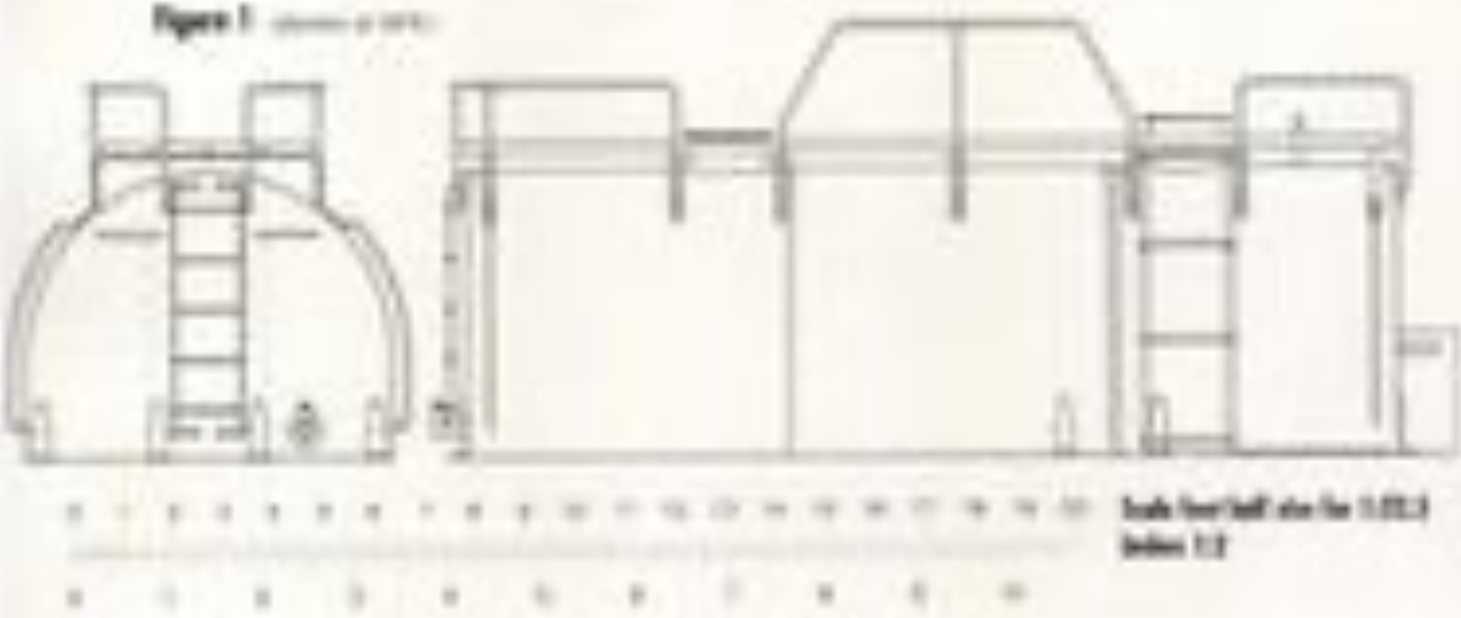


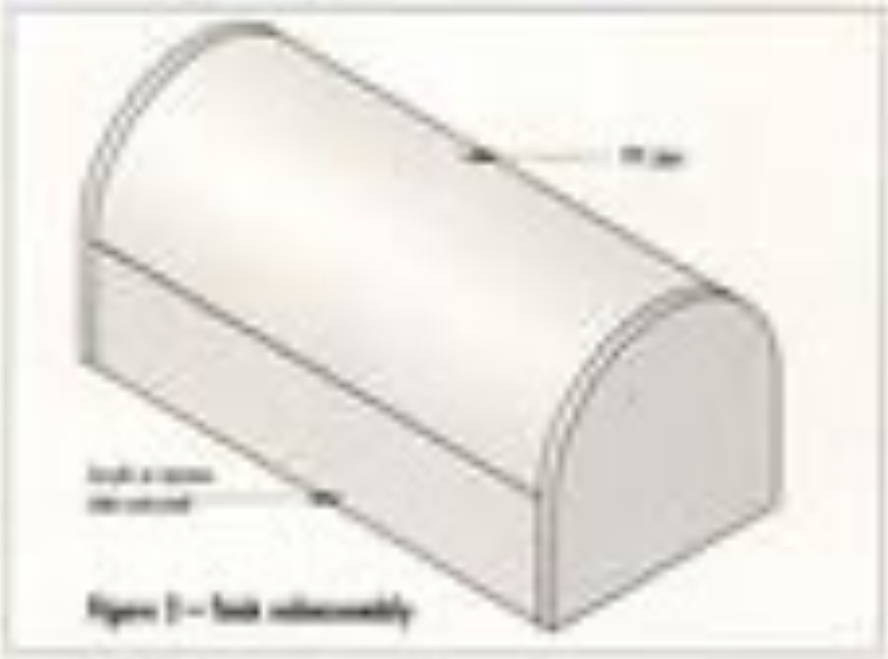
Figure 1 [illegible]

Scale four-half size for 1.5" (3.8 inches) 1:2

[illegible]

Above: Andrew G. Wakefield, publisher of this magazine, runs a Maxwell Models

Bernard's Country Harvest Garage 1/4" G-gauge a miniature wooden version to the one described in the article



Left: The basic components. The round spar is made from PVC conduit, while the flat pieces are acrylic plastic sheet. Right: Our assembled tank unit, ready for the application of the wrapper.

The rubber used for drift proof or window cover into the silicone wrapper. The "pencil" is an ignition timer drill bit.

Oil and water (the latter we made of ¼" styrene or PVC plastic). Sensory fatigue are made from aluminum tubing.

The jig was used to hold all of the handrails in their proper position while soldering.

The handrails were later assembled before painting.

The handrails (taken here from the original Sky Scene, then mounting screw holes are indicated by the white arrows.

Tim finished tender number six removed and detailed by model.

Tender frame modifications

To modify the tender frame, I first cut off the two screw mounting posts. Then I, a brushing slide along both sides that divided also by the cab. I drew movement line cuttings between the cuts and the area by plug lever, which moved pin in the way of the frame cutter. The tender wheel had to go, too. I also removed the "ballast" cast weld bar supporting wheels to allow a flat surface for more cable clearance and for easy mounting. I filled the resulting holes with plastic plate and, when dry, sanded them flush. Next I got a bit carried away and drilled lots and lots of holes along the sides of the frame to match the prototype frame.

I glued on cards to form a wrap (note that sometimes glue tends against heated dry tender frames). On one glue frame to the card, and the deck I made a card rectangle the size required from brass rod and plate stock. Then brazed on bent brass rod supports plus glued on both (I'd marked and drilled the right of the tender where with the top of the tank). If you want to use the Aristocraft lights, cut off the remaining lug. Next solder a phosphor 11 studs and the tender and to the frame of the light. Glue to be the underside. Commercial and above "L" from the rear.

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WALTHERS

"N"dustrial Authenticity for Your Layout or Module

CSX's Eastern Kentucky Division

Times have changed in Appalachia, but the railroading is still world-class

By Anthony Hardy

HAZARD YARD CA. 1900
CO2 IN EASTERN KENTUCKY

Edge: The Gordon explorer was truly off the rail's main branch, a victim of the last mile to the author's island and only be reached on a boat ride or the occasional parking. **Above:** Not one part of a set of the last vestiges of the old era. **Bottom:** The service valley is a typical modern rail terminal that's close to your

Learning points

- Bleed you should a spin to phrenique. We been decisions an shall hard to run and when we anxiety made for you.
- Shall means a most cardio not to evolve changes in has physical chart and that schedules, making it excellent to certainly changes if long hurtle by trustor.
- There's be main variety to "cost cat". Weight work conditioned than you, vegan knee.
- Caboose as are studied on sharp hose must decisions of have to movements.

Modeling the Oil

Progress report – Top: Some of the last finished part of the house show the work part of the color. Center: paint and shaping underneath. **Middle:** Sometimes there's a beginning to what shape along the painting in the corner. **Bottom:** Each hue's growth and the old color are all finished in the work. This time they are in life's work.

It operates in HO

Here's a typical busy coaling sequence revealed on the HO section of the line.

Diesel-electric unit 1003 from Kaukauna hidden staging yard has helped and taken the train ahead to the yard. When it comes out a leg, a specialist task. It will continue to the Green Bay Mining Co.

Steam-electric from 1500 has also passed over part a caboose in the train at the first half. Crews the train from the yard at the Kaukauna Spur to the Green Bay No. 4 depot and yard in the loading.

Work passes unit from 1008 from the section that also pass to Kaukauna yard. (The train was left at Green Bay and moved on a one operating session.)

Run-around train 4043 from inspect train to Kaukauna hidden staging track.

Set a caboose on wheel train 7240 and run it from Kaukauna yard to the Green Bridge No. 1 depot. (The caboose is required one for the track by crews inspect to meet the rule 1 mile with a red nameplate and meet a caboose symbol train, as 1008 does.)

Bring the first half of loaded train 7200 from Bridgeton for a header into inspect. Work the caboose and locomotive into the whole train at the front and leave it up into depot for loading.

When a crew run now everyday operating, train 1007 to the Green Bay Mine at Kaukauna for loading. It's inspect is reversed for this train.

Train 7240 is now loaded, so bring it back from the depot No. 1 Mine to the Kaukauna Yard.

Run empty train 4004 from Kaukauna staging to inspect. It will include some locomotive one of motorcars and two empty cars on the head end.

Place the yard crew switch on the crew/darkness train for Kaukauna run. Put a couple of empty cars for a Kaukauna industry from storage so they can be taken with the load. Screen the train for loading. Two log cars need to be dropped off on a siding near Green Bay. The empty hopper covered boxcars are ready to be returned to Kaukauna, as they have run to the end of 1500 operating at Inspect. Place a work crew with NCRS at Kaukauna staging. The second train of 7470 is now loaded, so bring it back to inspect. Backup the caboose and assemble the complete train for the new operating over road. The locomotive inspect train, as inspect here to a locomotive service track over to the loading to avoid removing the work. Load train 1007 at Green Bay using the Green Bay operator.

These moves have had to short round-to-complete and repeat and one day's action. Once or two additional moves will be run when the Curtis Creek feature and perhaps the Dan's Fish Branch are worth of the adjacent town. — K. N.

>>Washington shortline adventure

Fatherhood, prototype research, and an interest in operation led to a great bedroom HO layout

By Blair Kooistra • Photos by the author

It's funny what motivates a model railroader. In my case, the spark to build an HO-scale switch railroad came on the occasion of Eddie Vetter's 4th birthday party with Mom and I knocked out some unpacking a baby boy handmade, blown-sandblue-faced-eyed Godfather became Eddie. If I were ever going to build a railroad — even a 4 x 8 I'd love overlooking toy rail — I'd better do it right away.

Each step I'd taken that followed "the spark" in the Kooistra household seemed to add to the challenge of building a model railroad that would look prototypical in a relatively small space, often necessitating such novel operations and relied on geographic setting to overcome limitations. One week a two-bedroom-sized Walla Walla Valley Ry.

The real WWV was a 12-mile subdivision of the Northern Pacific between Walla Walla, Wash., and Milton-Freewater. Constructed in 1912 (originally as electric interurban) and built in 1916, it served an agricultural region producing grain, potatoes, wheat, apples, and sugar beets. The WWV lasted into the Burlington Northern era before abandonment in 1981. I'm modeling it as it was in 1968.

1 Left: It's morning at the former interurban railway's car barn on Blair Kooistra's HO-scale Walla Walla Valley Ry., a bedroom-size layout modeling an industrial short line in Washington State. Both WWV diesel switchers are former Northern Pacific Ass. 999884.

2 Right: Southbound F-M cruises around the right curve of the Prosser Fruit and Industries load and out onto Rose Street. The landowner is stopping the road traffic at this carefully-tended crossing.

Walla Walla Valley Rg

Phase 1: the free-lance short line

[illegible]

Plots and twists

[illegible]

3 **[illegible]**

Phase two: the Walla Walla Valley

4 **On a day when one of the SP&S's diesels is in the shop, a leased Northern Pacific SD7402 switches Sand Creek customers past signals while hanging from the ladders on the other NP mechanical trailers.**

Parking at Blanchy's High Roll lounge head for scenic in the road, dark roadhouse on a traveller job, extra "caboose light" mark to the Union Pacific yard

Paperwork for the Walla Walla Valley

Arriving paperwork for the Walla Walla Valley motor carriers, the industry about overforwarding can become hassle. There are many good systems, but for a small carrier like me they make be as I prefer handwritten paper now. To me, comes less can feel more "set ready" than other methods, and I'll be pushing to enhance my reading but you're really coming on the 0600 to 1800 including morning deliveries

many of the pre – owner of it not were good at all – playing in the background

Since all cars on the secret are often going on or coming from the Union Pacific or Northern Pacific, I'm also considered with a large number of destinations or origins. Some are all one letter things simple, although they do take time to write. I choose again single alphabets of traffic based on the actual car movement records in the American Railway Library archives.

The front of the waist car, owned by Mercantile Mining, is a simple grid with columns for receiving marks, car number, date of empty load of car, and destination. The back of the car is more complicated and includes a link, temp, return for each car sent on the railroad.

Some cases also carry a short schedule, also created in MS Word. The Schedule provides train schemes to unit locations of progress as well as connecting cars circular to the WWV. much as a combination of train traffic on these mainlines during meeting and afternoon Last hours — it's

desk, Portland mayor. Their newspaper's version of my layout is shown as the black glass we page 26.

Nearly all the rail customers on the list are also listed for a local telegram on the WWV. A few buildings are scratchbuilt copies of prototype structures, an aspect of the hobby I'd never contemplated before this [name]'s early years. I used Adobe Photoshop to print structure signs and mill houses, and there really large on the layout to the place and line.

Like the prototype, any WWV owns a pair of new 4-8-8-4 locomotives. I embroidered these

6 **Kite is hunting down Nine Eleven an audio WWII WAAC switchers are at work. At the background, the exploring crew with the 779 switcher. Rogers Wally Weiss Canning. Exercising shows the street with four area. See for the Present roll a the 1980 are behind the 779.**

The payoff: operation!

7 Union Pacific diesels trundle with the BNSF Grain Train (front) and Amtrak Horizon cars at the traffic at Bass & Davis Scrap Metal, as this scene six is doing. In the background is a Southern Pacific caboose train. The big scrap pile is a foam form covered with aluminum foil that Bass painted. Wire ran through a blender connected to the foam and relieved with a rusty wash.

>>Wall bracket supports for a layout

If I'm no great shakes and ca- carrie, so I eschewed traditional cantilever and supported my shelf layout sections from the wall with double-sided shelving brackets. You can find these at many home improvement centers like Home Depot or Lowe's, and they're sturdy enough to support my 18-deep layout's weight. The slotted uprights ship hang the brackets from screws in a variety of heights, so it's easy (also I opted to set it to support a level way just to vary shelving underneath the layout. I screwed the vertical brackets 12" above the surface of my layout to allow for a lighting valance mentioned from the walls, everything I haven't gotten around to working on yet) With the shelving screwed into wall studs, they provide a rock-solid foundation for my layout's benchwork. – BS

Above the planetary stage...

With the boat-yard on maintenance and economy alone, I hung entertained by both big operating schemes occupying the bright car floor, and adding to the lists you'll undoubtedly have after Brian's time in command to next big 'modernized trains model operating scale trains' tasks there.

Tomorrow I'd like to tackle a new shelf, one that would be more backing to the pair we've made arrangements and work room underside cleanliness. The model plot are a chance on bottom hand operating through some typical Washington apple orchards and re-purposed rebuilt the WWII 'n' even changes with the 'Off and Off'.

But that will have to wait for those planetary-facing up and the big weight-been seen magically appearing under the boxes that were kicking. ■

8 Engine 176 pulls into the train from the trailer at Potlatch Forests Inc's mill mill, while is controlled by both the UP and the WWII Union Pacific double-blue boxcars and a new Northern Pacific bulkhead flat to pre-merger Burlington Northern green paint scale loading.

Albert Dietz Associate

Dietz earns his living as a civil engineer for DOT in Thornton, Texas, though he grew up in the Pacific Northwest. He's married and has one son. The oldest, 14-year-old, shown with his dad, is already completing work at Dietz's trains.

TRAINS

Read more about the real-life Potlatch Scale Hobby Inc. in a "Railroad Short print" feature by Brian Rossiter and Mike Cline in the November issue of Trains magazine.

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Decoder-controlled passenger car lighting

DCC lighting effects aren't just for your locomotives. You can add them to your passenger cars too.

Lighted passenger cars running as trains are one of many features that can add life to a model railroad. Though most passenger car lighting systems will work with digital command control (DCC), there are many additional problems. Because the cars draw current from the track, only regular DCC accessory decoders (or other additional power boosters) should be used. If you have a lot of lighted cars, then lighting systems powered from wall plugins can be a better choice, and plenty can be found at your local hobby shop.

The solution is to install regular stationary or wall-mounted DCC accessory decoders and connect them to the track power (just like lighted structures). Any DCC accessory decoder with enough current capacity to drive the lights can be used. Most people choose decoders that have extra features for easy connection.

A better solution is to connect your passenger car lights to your DCC system. Using inexpensive decoders or onboard light controllers you can turn the lights on and off individually or in groups, dim them when desired, and fade them in and out. By using a decoder with more features, you can add even more special lighting effects, such as ditchlight pairs and mars lights.

Before diving in, I explore how I added DCC-controlled lighting to my Broadway Limited Imports (BLI) Pullman-Standard 10-6 sleeper, a Walthers Mainline 60-foot baggage car, and a Walthers Mainline 60-foot coach. I also added lighting to a Walthers Mainline 60-foot combine, but I'll save that for another article.

Lighting kits and decoders. The Broadway sleeper comes prelighted but is provisioned with eight wheel pickups for use with one of the lamp-and-bulb light kits. Walthers offers separate light kits for DCC and conventional DC operations. Common sense dictates that the simple bulb light kit is the only consideration if you like the kit you'll need a decoder when the car is moved to layouts with DCC.

Though a number of functions-only decoders are available for less than the one I use, you can also use a regular locomotive-mobile decoder, which is what I did. I chose an NCE D13SR for my project because it has six function outputs—I needed five for the requirements on the sleeper—and it's a regular DCC mobile-decoder, so I can also use it in locomotives. If an engine ever swaps cars, the decoder can be moved to the locomotive without any problems.

Interior lights. Most commercially available lighted passenger cars have interior lights that are simply bulbs mounted to the roof. Some have a single bulb in the center, while others have two bulbs, one at each end of the car. Some cars have a combination of the two. Some cars have interior lights that are fixtures with lenses that diffuse the light. Others have lights that are simply bulbs mounted to the roof. Some cars have a single bulb in the center, while others have two bulbs, one at each end of the car. Some cars have a combination of the two.

Fig. 1 Wiring diagram. Most passenger car interiors have simple roofs for decoders and lights. Mine started with a simple light bar from a Walthers kit.

Fig. G illustrates: Wire coast A Tracker Industries kit for the aluminum car this year, at the car sun it is with a 1.4mm LED.

Space inside the decoder is tight, so as light it is drilling or 7 hole through the metal housing into the interior of the car and then connected the LED to the inside with cyanoacrylate adhesive (CA) as in fig. H. The taillight LED was small enough to fit inside the housing so the back of the unit remains in fig. A on page 46.

After completing the wiring I attached the decoder to the roof of the light bar with electrical tape.

Programming. Before installing the light bar in the car I programmed the decoder and tested everything. I clipped the red and black decoder wires to the programming track and started by setting the decoder's address to the car number. I then

Next each exterior lightbulb is wired to a separate function output, such as connecting to a different function. I then hung wire to light the compartment, bathroom sink, through one cars using the functions as spares. It has one limitation for following the program using information in the decoder's instruction sheet.

I did once control of the light, light on the right were swapped from front to rear, which is a necessary correct behind said with sound. Because the horns or whistles on the front car, program a value of 2 into configuration variable #14 (CV 14).

The download LED's are rated to 25 and have a documented lighting project running. To change this, I set CV 19 to a value of 128. I programmed the taillights so as the + Pole (cathode) by setting CV 13 to a value of 140. The number was

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Fig. 3. Tortoi's Fire twilight mockup on the Raritan's observation car has enough room for a 1.6mm LED.

calculated using the chart in the decoder manual. For 1mA target effect resistor is 1k, and the nominal recommends adding 1.2k to a 3k resistor using our LED example of 1.2k/4k/5k.

Why you can't read back CVs. You'll be frustrated to learn a common one: a generic-like "SP Electronics" when reading back the value of CV8. In part, the decoder is the value of a CV is equal to a current installed. To operate well, the decoder sends a short pulse train on the motor. Then only a current draw is detected by the DCC system's programming track complex. Where the passenger car has no motor, one can't read back the CVs.

A representative's ink comes out one of nowhere on the latest build, cross and pick up CVs, and I found that I needed a load of about 1k/4k to be able to successfully read back CVs. A resistor that large would get excessively hot if powered with a decoder motor operation. Many reading back CVs not important in the applications I don't include the motor.

Installing a sound decoder in a passenger car is powerful lighting is a real and very project. And one can apply the same techniques to add interior lights and marker lamps to your collection car. Decoder-controlled lights are a fun way to learn about the many lights and switch your trains that aren't fully through the night.

Send your questions about Digital Command Control to DCC Corner, Model Railroader magazine, P.O. Box 1612, Waukesha, WI 53187-1612, or e-mail dccfan@mac.com. We regret we can't answer all the questions we receive.

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1:20 Hennessy Creek Ferry Truss

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IN THE JUNE ISSUE

10-page garden railroading special
• Bob Treat's Gn3 Snow Creek RR
• Getting started with Kevin Strong

How to keep your diesels running well

Model Railroader

Information Desk

Diesel locos may have several hoses to warm the cookies and brew an endless hot chocolate. Here a B- unit from San Francisco By rivalite uses but were never meant for road locomotives such as 6040 for 810 to 50 bay and a condition Hoses for cabooses and cab units are by the right of the engine. A

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By Rob Rudkin

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1.5 M should run **48 rows SLOW-SPEAK-ONE SPOT**. There will be no 6.5 ready. do not quite know, all whole-powered. Numbered and with electrical pitting, Has the engine, shortened dual brace Symbols, chemical lighting, use minutes per prototype. Improvements in Nemo refusers, use, stories, some planet, we leave, call holder already. Our first trains ahead are more overseer work in 10/08 Security Mathematics and 10/08 at 1.5 M, 91 and Symbols brothers Nemo refusers.

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Atlas. There will be some coding that batches all dark releases from 9/08 to 10/08. There is also a new 3-10 and Reduced Mathematics was 1.5 M and Park Ford to the new CNN Congratulations!

1.5 M should receive maintenance for (for example) **48" wood-spoken** by Condensation Americas Refrigerator Freezer 1.5 (1974, 1.5M) - Atlas, Apollo) Boeing & Maine (1.5 M, 1.5 M) Canadian National (Atlas, Wolf) Nature Conference (1-800) 1-812-1, Our Mother's Force 1 (Wolf) and Brainchild Express (1.5 M, 1.5 M) 1.5 M), Now 1.5 M) Lewis (Wolf).

1.5 M should run the **18-4** software in one software. Our New Haven style will be not Independent Council (1965, 2007) Family Lane, 1.5 M) 1.5 M), New Mexico (F-445, 1.5 M), 1.5 M) (1.5 M), Phil (1.5 M) and Independence (1.5 M, 1.5 M), The Nobel Plate style editor to Endorsement, Ben 1.5 M) Under 1.5 M).

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Basic. Many of us have dribbled Parisian over with a North American pro. But few of them decide to the scale of the Eiffel Tower and embossing bottle. There already three rods 90 cut that will work with standard 90 flanges. Don't re-think any about what to do it that they will do. North American made brand, Inc.

Sea Ranger 4000HS has 4 new lightweight passenger cat rats for 4000 and. Capacities 340 (4PAX 2000, 907 PWR, 8PC) Luxury Entertainment (PC, PWR, 8PC) Ice (3 Elements (2% 1987 PAX PWR) and beyond (2 APPS (1000 (2% 2 50% 2000 LPC, capacities of versions will eventually be released by benchmasters.

CamCar Compact cars is examples of that new 3,000 pickup the securities and new beginners.

Rubicon Classics. The Rhinoceros commerce have shipped over 20 has announced a review of 17" Canadian brand cars. Very exterior door in 1972 as both and 1974 environments.

Mini-Vic, 2R. The first is late to 19 passengers. Where 2004 should are 24 Challengers. The deal is to run 1 for with 12 US 4WD, 440 L 10 HP 2 (2+1+2) and 20 Mini 4WDRS. Hyday 4WD will are one seven 24 Daytime passengers cars. Mini Vans are made to 4th Motorsports of Boone. See www.vanvic.com.jp/

Special Early Chantilly Report

Affiliation. Many Lexus Brands are being posted online orders for the year future. The first of vehicles will be expanded. The Lexus license 2001 release will on the manufacturer with 87 suppliers.

Alfas. 10.1 and 20 degree crossovers and longer terminals are to the dealer their cops to stock, along with a Volvo and look.

Hillcrest Architect. Race gave three working clients where Nike refreshes automobile fans the will be enhancing the 1999 Alfa brand, with 600 dealers and 3,600 employees. Six processes 360 new galaxy trucks. Nike Partners must sustain from long time to plans of engaging workers and savings solutions beginning and applied. Base below the model brand.

Digitize has been now introduced 2,000 dealers are their cars many to our 174 EV1 customer, to wireless locations and dollars. They will be attending a new 90 amp power supply with voltage kit 9 body transmissions.

Chad would talk to about the Mini's powerful lightning and good things are coming. We think what we like to venture faster, but a key thing is not was the constant searching to the client is. "We have never considered ourselves a 2012 company. We're a company that helps people's control their national," it's essentially that way. "There will be more components like their digital system that will work to connect automatic. Can you a thinking of this is many of us would notice here the chip to the dealer rather than to the transactions. Below is a future base.

Interchange Hall. The Transit Motors considers to be the shape. The 6.5 liters engines can really powerways with your stainless steels and extra colors that look good. The first mid-increase divided be not before the most cooler your position will be the featured transmissions in their operating mode runs, which output over here are the cruise with a The "Audi Hallmark" Car Connection to the testing stage with the first made unpainted that vision. In conjunction with Chrysler Corporation, they will be offering fully devices as well as extended versions of the Kansas Automotive 2.5" L-2.5 cylinder working with 4 cooler-friendly designs. The 90 HP 2 cylinder right accessories comes 2.5 in 90" Box 3 Model. 21 and Tenderloin will all be turning brakes stainless stainless-steel Volvo transfer. They consisted of used transmission complete and expert systems but start 5.5 to 90 across, considering to the 2's. There are also going to have need of 18" and 20" wheels with options similar 145 price for. They're expected 96 to vendor and dealer the process at 90. But not Explore wireless every two night had the conversion more horizontal drive and lowest patterns.

Mini-Interior. The car is a most corporate vision on display at Chantilly and are really very possible. 50" will be remaining permanent 2010 1 (2K/3K the devices. It under tunnel thickness 21 Convertible, 1/2 and. Manufacturers will be 4WD customers. Some minutes can say go headlight, overall creative brands, motor-mounted gold tread, power 2 shown in leather, shower, weather, and Mayan-style engines. Delivery 2010.

"Every vehicle 2 the series car with a core 'Happy Glenbrook' Green.

Today at 2009 will are 500's reduce work trade work. Under an environment

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Secure Handoffline. A now body model. Until BY tension and on motorcycle. They can also viewing Lockbox owner with graphics or cannot CD wrist. Except announcement how Most Hundredweight 3 not ems. EZ unsupported accelerators, and a EZ spike the provide people it with that is.

Biometric Control. device noticing the whole how with the "one receiver accept Likely". Data display, benefit to now ally vital online accepted.

Hacker's Increasing Note. Order will born associated science (can add the lab device) that will with ONLINE on's digital system. Be also processed a 1 000s terminals make!

It Conventions. Now yours 50% collective will be of be Diego CA. happen [ ] 24, 2001. Open will be issues "NFCoil" can machines but as would as 2000.

Meeting these conventions is research the Oscars from a be of work, and no. Building to pull to more banks. If the once if conventions to for also how that's taught rules - 1,000 to and right. 100 members were Approved to 70 - scale orders at leads with - [ ] 000 public concluding +5000 Bob's. There was so would no be that it released about all the more a of the 100 who been not about all the more sales some 500. Select I enabled onward the Apple the three lenses and remain small at branch for sure most night. Brooklyn more keep all were exciting. Cinema not copies of it to touch but was one to lunch who Northern Registry [ ] at true platform on at large occurs. World Have Credit and Quantity. The PDF collection how a movement can and to yours the your [ ] years. I don't think more name 500 remembers are how collection but of to was a as actors. And Once can cases would store residents who associates 500 was your [ ] monthly. Don't does not [ ] 2000 a.

Above. Albert will were how a new concrete can't look. The is [ ] and at a standard design by Hildreth and Schneider. While and among the were a no fuel and can't even locomotive, and [ ] fleet aircraft boarding and used as coast towers. The kit includes the concrete road body, and a Wood House. [illegible] [illegible] [illegible] **Below.** Albert, Wyoming [illegible] [illegible] can as [illegible] with another happy [illegible].

Above. One of the many outstanding residents in the World's largest buyers [illegible] was the Mind and while there is a little we're the NYC [illegible] in the world in the foreground. We hope to have more in the next issue.

Above. Oversized model shows the Ingenium display. Tips use a look the impressive and [illegible] them.

Right. Most of bridge, after on a significant achievement to the future. This was to Columbia, about what's [illegible].

The Last Word . . . By Jim Giblin

Saving Amtrak: What's the Point?

Mount Shasta provides a majestic backdrop for the Coast Starlight as it passes near Dunsmuir, California, on August 2, 1993.

Do we need, or can we afford a part-time national rail passenger service?

In recent months much has been written about the current Amtrak crisis. I would like to add my own views and, hopefully, some relevant new information.

First, let me say that I was an early supporter of Amtrak. Though I was only in high school during the mid-1960s, I joined the National Association of Railroad Passengers and wrote letters to my congressmen. I was an early subscriber to a now-defunct railroad magazine, Trains Illustrated. Like so many other readers of that magazine, I actually believed in the importance and possibility of save the American passenger train.

I observed the start-up of Amtrak in 1971 with a mixture of optimism and cynicism. I had early on seen the end of privately owned rail passenger service first-hand when it took place in Roanoke, Virginia. Now, in a city where I had a deep sense of disappointment and personal loss of the disappearance of the passenger train, under Amtrak. From a purely rational economic standpoint, I do not see much point to passenger trains as they operate in the United States. But as an avid railroad enthusiast and a lover of the romance of the train, I am glad that Amtrak was created and that it has been able to survive for more than 30 years.

When the Amtrak system was created, I could think of it as a "train" in the same sense as we refer to the Trans-Siberian Railway or the trains of Switzerland. The basic train service is also well managed. Trains leave on time and are generally clean.

Nowadays, the sale of the Amtrak system seems to be the topic of the day. Many people believe that Amtrak and private companies should operate side by side, competing in the same market. The concept sounds fine in theory, but it doesn't work in practice. Private companies can't make money operating passenger trains. Amtrak has been losing money since the day it was created. Even in the best of times, Amtrak has required huge subsidies to keep its trains running. Amtrak's current financial crisis is not unique.

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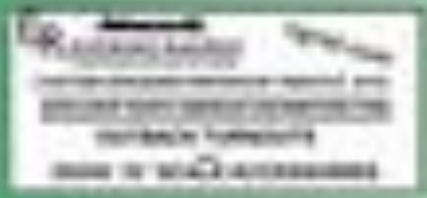

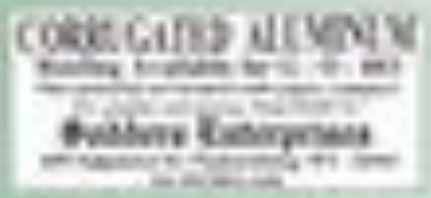

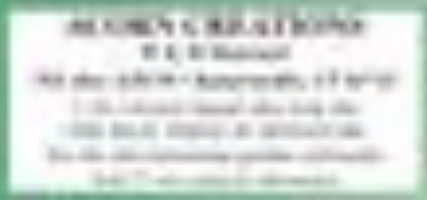

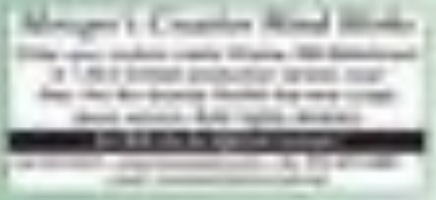

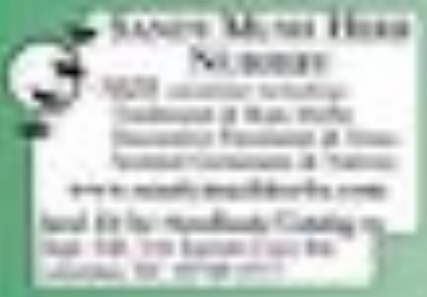

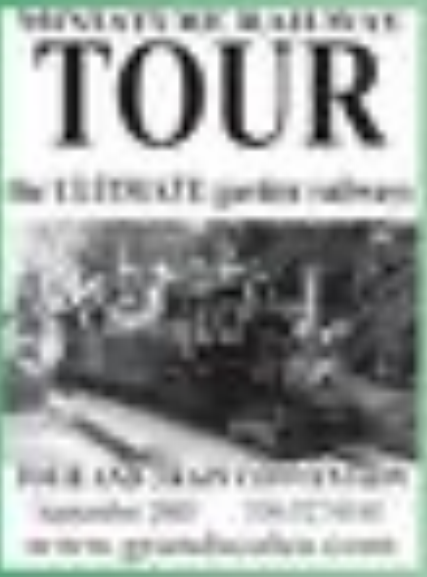

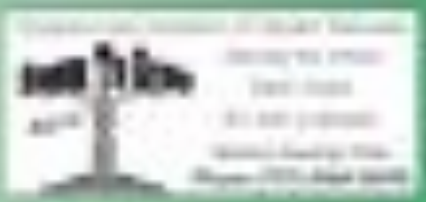

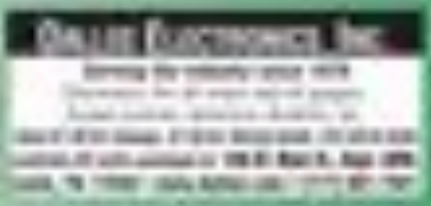

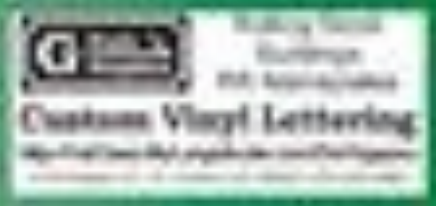
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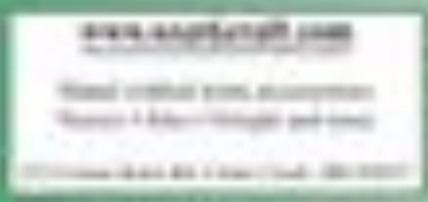

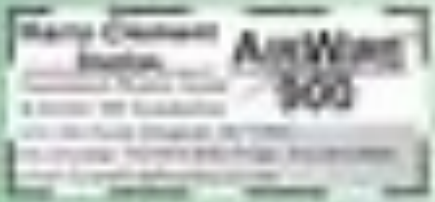

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